Haddon Matrix Applied to the Problem of Residential Fires

	Host (*children, elderly, adults in home*)	Agent/ Vehicle (*cigarette, matches, appliances, heaters, and upholstered furniture*)	Physical Environment (*home*)	Social Environment (*community norms, policies, rules*)
Pre-event (*before fire starts*)	• Teach children not to play with matches • Provide information about fire risk and cooking (loose clothing, long hair, etc., may catch on fire)	• Redesign cigarettes so they self-extinguish • Automatic shut-off for appliances such as coffee makers. • Inspect and clean chimneys, heating systems each year.	• Lower flammability of structures • Insure adequate emergency escape exits from home	• Improve efforts to curb smoking initiation • Improve smoking cessation efforts
Event (*during fire*)	• Teach children to stop, drop and roll • Plan and practice a fire escape route with children and adults • Teach children not to hide during a fire	• Design furniture with materials that are less toxic when burned • Design upholstery that is flame resistant	• Install smoke detectors • Install sprinklers • Increase number of usable exits	• Pass ordinances requiring smoke detectors and/or sprinkler systems • Fund the fire department adequately to provide enough personnel and equipment for rapid response
Post-event (*after child or person injured by fire*)	• Provide first aid and CPR to all family members	• Design heaters with quick and easy shutoff device	• Build homes with less toxic building materials	• Increase availability of burn treatment facilities

Source: Dr. Carol Runyan, University of North Carolina, Injury Prevention Research Center.